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## **Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims**

1. (Original) A method of preparing a cyclohexanone of formula (1):

$$Ar^{1}SO_{2}$$

$$(1)$$

comprising:

(a) cycloaddition of a 2-trialkylsilyloxybutadiene of formula (2a) to a vinyl derivative of formula (2b):

OSiR<sub>3</sub>

$$\begin{array}{c}
CH_2 \\
| \\
| \\
Ar^2 \\
\end{array}$$
(2a)
$$\begin{array}{c}
CCH_2 \\
| \\
SO_2 \\
-Ar^1
\end{array}$$

to form a silyl enol ether of formula (3):

$$Ar^{1}SO_{2}$$
 OSiR<sub>3</sub>
(3)

and

(b) hydrolysis of said silyl enol ether to form the cyclohexanone of formula (1);

wherein, in formulae (1), (2a), (2b) and (3), R represents C<sub>1-6</sub> alkyl;

Ar<sup>1</sup> represents  $C_{6-10}$ aryl or heteroaryl, either of which bears 0-3 substituents independently selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH, OCF<sub>3</sub>, C<sub>1-4</sub>alkoxy or C<sub>1-4</sub>alkyl which optionally bears a substituent selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH and C<sub>1-4</sub>alkoxy; and

Ar<sup>2</sup> represents C<sub>6-10</sub>aryl or heteroaryl, either of which bears 0-3 substituents independently selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH, OCF<sub>3</sub>, C<sub>1-4</sub>alkoxy or C<sub>1-4</sub>alkyl which optionally bears a substituent selected from halogen, CN, NO<sub>2</sub>, CF<sub>3</sub>, OH and C<sub>1-4</sub>alkoxy.

2. (Original) A method according to claim 1 wherein the cycloaddition reaction between the vinyl derivative (2b) and 2-trialkylsilyloxybutadiene (2a) to form silyl enol ether (3) is carried out at 100-150°C in a hydrocarbon solvent under an inert atmosphere.

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3. (Previously presented) A method according to claim 1 wherein hydrolysis of the silyl enol ether (3) to the cyclohexanone (1) is carried out *in situ* without isolation or further purification of the silyl enol ether.

- 4. (Original) A method according to claim 3 wherein said hydrolysis is carried out by treatment with aqueous mineral acid at 30-80□C.
  - 5. (Previously presented) A method according to claim 1 wherein each R represents methyl.
- 6. (Currently amended) A method according to claim 1 wherein the vinyl derivative (2) (2b) is prepared by reaction of a sulphone (4):

$$Ar^2-CH_2-SO_2-Ar^1$$
(4)

with N,N,N',N'-tetramethyldiaminomethane and acetic anhydride in DMF and Ar<sup>1</sup> and Ar<sup>2</sup> are as defined in claim 1.

7. (Currently amended) A method of preparing cis-cyclohexanepropanoic acid of formula (11)

according to claim 1 comprising the additional steps of:

(c) reacting a cyclohexanone of formula (1) with a di(C<sub>1-4</sub>alkyl) cyanomethylphosphonate and base to form a cyclohexylideneacetonitrile (7):

$$Ar^{1}SO_{2}$$
 $CN$ 
(7)

(d) reducing said cyclohexylideneacetonitrile with lithium tri-sec-butylborohydride to form the corresponding cis cyclohexaneacetonitrile (8):

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$$Ar^{1}SO_{2}$$

$$(8)$$

(e) sequential treatment of said *cis* cyclohexaneacetonitrile with di*iso* butylaluminium hydride and aqueous acid to form the corresponding *cis* cyclohexaneacetaldehyde (9):

$$Ar^{1}SO_{2}$$
 CHO

(f) homologation of said *cis* cyclohexaneacetaldehyde to the corresponding *cis* cyclohexanepropanal (10):

$$Ar^{1}SO_{2}$$
 CHO
$$(10)$$

and

- (g) oxidising said cis cyclohexanepropanal to the corresponding cis cyclohexanepropanoic acid
   (6);
   wherein Ar<sup>1</sup> and Ar<sup>2</sup> are as defined in claim 1 and "cis" refers to the stereoconfiguration of the side chain relative to the Ar<sup>1</sup>SO<sub>2</sub> group.
- 8. (Original) A method according to claim 7 wherein in step (c) the  $C_{1-4}$  alkyl groups are ethyl, the reaction is carried out in THF at 0°C or below and the base is potassium *t*-butoxide.
- 9. (Previously presented) A method according to claim 7 wherein the reduction in step (d) is carried out in THF at about -60°C.
- 10. (Previously presented) A method according to claim 7 wherein the homologation in step (f) is effected by reaction of the *cis* cyclohexaneacetaldehyde (9) with a methoxymethyltriphenylphosphonium salt and strong base, followed by hydrolysis of the resulting mixture of enol ethers with aqueous acid.

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11. (Previously presented) A method according to claim 7 comprising the additional step of neutralising the cyclohexanepropanoic acid (6) with sodium hydroxide to form the sodium salt thereof.

- 12. (Previously presented) A method according to claim 1 wherein Ar<sup>1</sup> represents 4chlorophenyl, 4-trifluoromethylphenyl or 6-trifluoromethylpyridin-3-yl and Ar<sup>2</sup> represents 2,5difluorophenyl or 2,3,6-trifluorophenyl.
- 13. (Original) A method of preparing sodium cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5difluorophenyl)cyclohexanepropanoate comprising the steps of:
- (i) preparing 4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanone by the method of claim 1 wherein Ar<sup>1</sup> represents 4-chlorophenyl and Ar<sup>2</sup> represents 2,5-difluorophenyl;
- (ii) reacting the product of step (i) with diethyl cyanomethylphosphonate and potassium tertbutoxide to form [4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexylidene]acetonitrile;
- (iii) reducing the product of step (ii) with lithium tri-sec-butylborohydride to form cis-4-[(4chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexaneacetonitrile;
- (iv) reacting the product of step (iii) sequentially with dissobutylaluminium hydride and with aqueous acid to form cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanal;
- (v) reacting the product of step (iv) with methoxymethyltriphenyl-phosphonium chloride and potassium tert-butoxide, then hydrolysing the resulting mixture of enol ethers with aqueous acid to form cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanal;
- (vi) oxidising the product of step (v) with aqueous sodium chlorite and sulphamic acid to form cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexanepropanoic acid; and (vii) neutralising the product of step (vi) with sodium hydroxide.